

The Necessity of Identity

- For any x and y , if $x = y$, then *it is necessarily true that* $x = y$.
- Proof of Nec of Id:
 - Suppose $a = b$. Now, $\text{Nec}(a = a)$, since this is a truth of logic. Hence, a has the property: being necessarily identical to a . By the supposition, b has this property too.
 - So $\text{Nec}(a = b)$.

Problem: Apparently contingent identities

- B Obama is (=) the president of the US.
- The inventor of bifocals is (was) the first postmaster general of the US.
- Mark Twain is Samuel Clemens.
- Hesperus is Phosphorus.
- That man is Josh May.

How are contingent identities possible?

- Kripke's answer: They're not.
- The previous proof is sound: whenever identity holds between x and y , it holds necessarily.
- The *appearance* of contingent identity statements must be a kind of misunderstanding or illusion.

Divide and Conquer

- Some of these statements are not really *identities*.
 - The ones that involve one or more *definite descriptions*.
- Some of them are not really *contingent*
 - The ones that involve *names* or *demonstratives*.

Russell on Descriptions again.

- George Bush is the president of the US:
- This is contingent, but it is not a simple identity statement:
- We assume Russell's Theory of Descriptions:
- There is a unique x s.t. (x is president of the US & $BO = x$).
- The Principle of Nec of Id does not apply to sentences of this complex form.

Scope

- Nec of Id entails (2), but not (0) or (1):
- (0) $\text{Nec} [\text{There exists a unique } x \text{ s.t. } (x \text{ is president} \ \& \ (BO = x))]$.

- (1) There exists a unique x s.t. $\text{Nec}(x \text{ is president} \ \& \ (BO = x))$
- (2) There exists a unique x s.t. $(x \text{ is president} \ \& \ \text{Nec}(BO = x))$.
 - This *does not attribute being president to BO necessarily*.

More on scope

- Both of these statements are ambiguous:
- Ten years from now, the president will be a woman.
- The president is necessarily president.

What about names?

- Argument for the contingency of “Mark Twain is Samuel Clemens”:
- It’s a contingent fact that SC ever grew up and became a writer, taking the name ‘MT.’
- So (?) it’s contingent that $MT = SC$.

Being and Being Called

- WRONG: The premise shows only that it’s a contingent fact that SC was ever *called* “Mark Twain.”
- But being MT and being called ‘MT’ are not the same thing.

Wisdom from Abraham Lincoln

- If we called a tail a ‘leg,’ how many legs would a horse have?
- Four, of course. Calling a tail “a leg” doesn’t make it one.
- Converse is also true: being a tail doesn’t necessarily mean that it’s called a ‘tail.’
 - SC might not have been called MT: true.
 - SC might not have been MT: false.
 - We speak our language when we talk about other possible worlds.

Names are Rigid Designators

226-7

- They refer to the same thing in every possible world (in which that thing exists).
- Definite descriptions are (mostly) non-rigid designators: ‘The 44th president’ refers to BO in the actual world, but to other people in other worlds.

Names just name, they don't describe

- A name refers to the thing itself, not whatever is the possessor of such-and-such properties.
- Related to the denial of the Identity of Indiscernibles.
- Involves rejecting Lewis's counterpart theory of modal facts. 228

Kripke on *De Re* Possibilities

- If Nixon had bribed some senators, he would have gotten Carswell through 229
- If the 37th president had bribed some senators, he would have gotten his first Supreme Court nominee through
- These two statements are not equivalent.
 - The first is really about Nixon and Carswell
 - Difficult for Lewis to accommodate this difference.

Actualism

- Probably Kripke's view: Only the actual world is real.
- Facts about what might have been are not grounded in facts about other possible worlds, construed as real worlds like this one.
- Talk of possible worlds is still useful as a model and a heuristic.
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Hesperus and Phosphorus

- Quine's argument pp 222-3:
It was an *empirical discovery* that Hesperus is Phosphorus.
- Suggestion: what if Hesperus's path were slightly different, and another planet occupied the actual location of Hesperus in the morning?
 - Still not a world in which Hes is not Phos

Empirical does not imply contingent

- A Priori/A Posteriori is an *epistemological* distinction.
- Necessary/Contingent is a *metaphysical* distinction. 231
- There are truths that are only knowable a posteriori, but are nevertheless necessary.

Other identities

- Water is H₂O.
- Heat is molecular kinetic energy.
- Lightning is an electrical discharge in the atmosphere.
- Are these necessary or contingent?

Necessary

- “Water is (=) H₂O” is the answer to the question, “what is it to be water?”
- This is the *essence* or *nature* of water, not just some contingent or accidental property of water. Conceivability and Possibility
- Can’t we conceive of a world in which water is not H₂O but, say XYZ?
- No, what you are really conceiving of is a world in which the water is replaced by some substance that is similar to water but is XYZ (and so not really water).
- Similarly with the lectern made of ice. 232

Natural Kind Terms are Rigid

- ‘Heat’ designates the objective physical phenomenon that *causes* a certain sensation – not the sensation itself 239
 - “Water could have turned out to be XYZ”
- -----This is true only in the sense that at one time it was *epistemically* possible that water might be XYZ.

- But given that it is H₂O, it is (metaphysically) necessarily H₂O.

—Compare mathematical propositions the truth of which we are unaware.

Pegasus: Back to the Drawing Board

- Problem of how there can be meaningful proper names that do not denote anything returns if Kripke is right.